

Attorney's Docket No. 42390.P4222D3

PATENT

#2 2-14-02
R Stokes
pre Amended

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re Application of:

Robert S. Chau, et al.

Application No. Unassigned

Filed: Herewith

For: DEVICE STRUCTURE AND
METHOD FOR REDUCING
SILICIDE ENCROACHMENT

Which is a Divisional of a Divisional

Application No: 09/654,315

Filed: September 1, 2000

Which is a Divisional of a Divisional

Application No: 09/115,405

Filed: July 14, 1998

Which is a Divisional of a Nonprovisional)

Application No. 08/884,912

File: June 30, 1997

Examiner: Unassigned

Art Unit: Unassigned

Examiner: Thein Tran

Art Unit: 2811

Examiner: Thein Tran

Art Unit: 2811

Examiner: Maria Guerrero

Art Unit: 2822

Box Patent Application
U.S. Patent and Trademark Office
Box 2327
Arlington, VA. 22202

PRELIMINARY AMENDMENT

Dear Sir:

In the Divisional Application filed concurrently herewith, please enter this amendment and consider the following remarks.

IN THE SPECIFICATION

Please add the following as the first paragraph on page 2:

A¹

This is a Divisional Application of Serial No. 09/654,315 filed September 1, 2000, which is a Divisional Application of Serial No. 09/115,405 filed on July 14, 1998, which is a Divisional of Application Serial No. 08/884,912 filed June 30, 1997.

IN THE CLAIMS

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30. A method of forming a semiconductor device comprising:
forming a gate electrode having a first thickness on a gate dielectric layer formed on a first surface of a substrate;
forming a pair of source/drain regions on opposite sides of the gate electrode;
forming a silicon germanium film having a second thickness on the gate electrode;
forming a silicon germanium film having the second thickness on the source/drain regions;
forming a silicide layer having a third thickness on the silicon germanium films.

31. The method of claim 30 further comprising:
forming a pair of sidewall spacers having a first height above the substrate surface on opposite sides of the gate electrode, wherein the first height is greater than the sum of the first and second and third thicknesses.

32. The method of claim 31, wherein the sidewall spacers comprise silicon nitride.

33. A method of forming a semiconductor device, comprising:
forming an isolation region having a top surface in a semiconductor substrate;
etching the semiconductor substrate adjacent to the isolation region to form a recess region;

A²
Concl'd.

depositing a silicon germanium film having a top surface in the recessed region; and

depositing a silicide layer having a top surface over the silicon germanium film.

34. The method of forming a semiconductor device of claim 33, wherein the silicide layer top surface extends above the isolation region top surface.

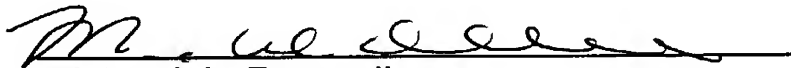
35. The method of forming a semiconductor device of claim 34, wherein the silicon germanium film top surface extends above the isolation region top surface.

If there are any additional charges, please charge them to our Deposit Account Number 02-2666.

Respectfully submitted,

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Date: December 6, 2001


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